

## **REMARKS**

Claims 11-20 were pending in the application at the time the Office Action was mailed. Claims 11-17 were rejected. No claims were allowed.

By this Response, claims 11 and 16 have been amended. No claims have been added or cancelled. The claim amendments are fully supported by the original disclosure and no new matter has been introduced. Although no fees are believed due, the Commissioner is hereby authorized to charge any deficiency or credit any surplus to Deposit Account No. 14-1437.

The amendments presented herein have been made solely to expedite prosecution of the instant application to allowance and should not be construed as an indication of Applicants' agreement with or acquiescence to the Examiner's position. Accordingly, Applicants expressly maintain the right to pursue broader subject matter through subsequent amendments, continuation or divisional applications, reexamination or reissue proceedings, and all other available means. The amendments and rejections are addressed below in more detail.

### **Claim Rejections - 35 U.S.C. § 112**

In the Office Action, claims 11-17 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, the Office Action states that claim 11 recites the broad recitation "samarium-cobalt particles" and the claim also recites "SmCo"; and the claim recites the broad recitation "neodymium-iron-boron particles" and the claim also recites "Nd<sub>2</sub>Fe<sub>14</sub>B." Claim 11 has been amended herein to omit mention of "SmCo" and "Nd<sub>2</sub>Fe<sub>14</sub>B." According to the Office Action, claim 16 recites the broad recitation which is the Markush group consisting of PTFE, fluoroethylenepropylene, etc., and the claim also recites "preferably PTFE." Claim 16 has been amended herein to omit mention of "(PTFE)" and "preferably PTFE."

Accordingly, withdrawal of this rejection is respectfully requested.

### **Claim Rejections - 35 U.S.C. § 103**

In the Office Action, claims 11-17 were rejected under 35 U.S.C. §103(a) as being

unpatentable over International Public. No. WO 00/76458 A2 to Golz-Berner et al. (hereinafter “Golz-Berner et al.”) in view of US Patent No. 5,961,988 to Zastrow et al. (hereinafter “Zastrow et al.”), US Patent No. 4,857,306 to Roller (hereinafter “Roller”), and US Patent No. 5,069,918 to Graf et al. (hereinafter “Graf et al.”). According to the Office Action, “[i]t would have been obvious for one of ordinary skill in the art to have included barium hexaferrite nanoparticles at the field strength of 7960 to 1,592,000 Amperes per meter and in an amount of 0.01% to 10%, as of Zastrow, in the composition of Golz-Berner;” “the skilled artisan would have been motivated to look to Zastrow to have predictably determined the appropriate proportion and coercivity of said barium hexaferrite nanoparticles for effectiveness in oxygen transport with a reasonable expectation of success;” “[i]t would have been prima facie obvious for one of ordinary skill in the art to have combined the jade or nephrite particles as of Roller, with the cosmetic composition of the above references;” and “[i]t would have been prima facie obvious for one of ordinary skill in the art to have decreased the particle sizes of the particles of Roller.”

Applicants respectfully disagree with this rejection and these assertions, and assert that the combination of Golz-Berner et al., Zastrow et al., Roller, and Graf et al. would not result in the claimed invention and the combination does not render the claimed invention obvious for the reasons described below. The combination of references fails to teach all claim limitations of amended claim 11 (e.g., ground jade stone particles ranging in size between 50 and 90 nm), Roller *teaches away* from the presently claimed invention, the results of the presently claimed combination were unexpected, and the elements in the presently claimed combination do not merely perform the function that each element performs separately; the claimed combination provides a synergistic effect.

As set forth in amended claim 11 (from which claims 12-17 depend), the claimed cosmetic and dermatological agent contains magnetic particles including 0.0001 to 2 wt. % of magnetically hard particles (one of barium hexaferrite single crystals, strontium hexaferrite single crystals, samarium-cobalt particles and neodymium-iron-boron particles), the particle size ranging between 80 and 550 nm in each case and the particles' coercive force ranging from 80,000 to 1,600,000 A/m; and 0.0001 to 0.05 wt. % of a ground jade stone the particle size of which ranges between 50 and 95 nm. When applied to the skin, the mixture of these ingredients in the claimed amounts unexpectedly provides a synergistic effect that results in an increased functional state of microcirculation, an improved adaptation width of microcirculation, and an

increased immune defense by 15-30% when applied to the skin. Specification, paragraphs [0014] - [0016] and [0049].

The Office Action admits that Golz-Berner does not teach jade particles with the size of 50-95 nm and the coercive field strength of the barium hexaferrite nanoparticles or the percentage in which they are included in the composition. The Office Action relies on Zastrow et al. for its disclosure of barium hexaferrite crystals and on Roller for its disclosure of incorporating jade into cosmetics. Regarding Roller, this reference discloses the use of precious stones as a colorant. Although jade is mentioned, jade is only mentioned among a large group of other stones. None of the examples are directed to the use of jade. Thus, Roller does not disclose or suggest jade as a preferred precious stone. Furthermore, Roller lacks any teaching to use said precious stones in a concentration as low as 0.05 wt-% or less. In fact, the preferred concentration range is around 5 wt-% and the concentrations used in the examples range between 5 wt-% and 50 wt-%. Thus, the skilled person considering the teaching of Roller would expect that, if precious stones are to be used as colorants and in order to achieve a sensible coloring effect, the concentration of the precious stone to be used should be within the preferred range of 2 to 8 wt-%. If a concentration is used that is considerably lower than the concentrations explicitly used in Roller, the skilled person would expect the precious stone to no longer function effectively as colorant. Thus, Roller *teaches away* from applying precious stone as a colorant at a concentration of 0.05 wt-% or less. This understanding of Roller can not be reversed simply by quoting the concentration range of up to 10 wt-%, which lacks mentioning of a lower limit. The skilled person is well aware that if precious stone is to be used as a colorant, there must be a lower concentration limit below which the coloring effect is no longer sensible. This understanding can also not be challenged by the fact that, at least according to the present invention, it is possible to use ground jade at a concentration as low as 0.05 wt-% or lower, simply because in the cosmetic composition of the present invention ground jade does not have to function as colorant. In summary, when substituting the colorants of Golz-Berner et al. with precious stones of Roller, the skilled person would not consider to use these precious stones at a concentration as low as 0.05 wt-% or less.

Regarding Graf et al., this reference is relied upon for its alleged disclosure of particle sizes. However, Applicants disagree with the logic for relying on Graf et al. According to the Office Action, Graf et al. "teaches that reflectance decreases with an increase in particle size,

because the path length of light through a particle increases as the particle increases in size, providing greater opportunity for light be absorbed, (and as such less light is reflected).” However, Applicants assert that Graf et al. only teaches a rather general rule. Considering Graf et al., there is no reason for the skilled person to arrive exactly at a particle size that lies within the particle size range of present claim 1 of 50 to 95 nm.

In summary, the only cited reference that mentions jade (Roller) discloses use of jade only as a colorant in eye shadow and fails to even mention magnetically hard particles or barium hexaferrite single crystals, and the combination of cited references does not teach the limitation of ground jade stone particles ranging in size between 50 and 90 nm. Even if the skilled person would consider combining the teachings of Golz-Berner et al., Zastrow et al., Roller and Graf et al., the skilled person still would not arrive at the subject matter of the present invention since the prior art of record fails to disclose the required particle size of the ground jade, the prior art of record fails to motivate the skilled person to use jade at a concentration requested by present claim 1, and there is no motivation or suggestion in any of the cited references to combine one or more of them.

In addition, the elements in combination as presently claimed do not merely perform the function that each element performs separately; the claimed combination provides a synergistic effect. Further, the results of the claimed combination were unexpected. The specification as filed describes test results in which the claimed combination was shown to increase the functional state of microcirculation, improve the adaptation width of microcirculation, and increase immune defence by 15-30% relative to a comparative composition that did not include ground jade stone. In stark contrast, none of the cited references disclose test results relating to circulation and immune system performance. Golz-Berner et al., for example, describes only the production of cosmetic products, without any testing. Similarly, Zastrow et al. does not disclose testing of any of the cosmetic formulations described therein. Still further, the logic in relying on Graf et al. for a motivation for decreasing the jade particle sizes of Roller (which discloses eye shadow formulations) is erroneous, and combining Graf et al. with the remaining references neither results in the presently claimed invention, nor suggests the presently claimed invention.

The features recited in claim 11 contribute to the special effects of increased functional state of microcirculation, an improved adaptation width of microcirculation, and an increased immune defense by 15-30% after being applied to skin. The comparative test results described

in paragraphs [0043] through [0049] of the present specification and Figures 1 and 2 as filed illustrate the differences between the prior art and the presently claimed invention. The cited references clearly fail to disclose all limitations of the independent claims. Furthermore, none of the cited references, whether alone or in combination, disclose or suggest the claimed mixture of ground jade particles of a particular size and magnetically hard particles of a particular size having a particular coercive force to provide increased functional state of microcirculation, an improved adaptation width of microcirculation, and an increased immune defence by 15-30% after being applied to skin. In addition, absent impermissible hindsight, there is no motivation or suggestion in the cited references, or elsewhere, that would lead to the claimed invention. Finally, there would be no reasonable expectation of success for combining the cited references in order to product a cosmetic and dermatological agent that results in an increased functional state of microcirculation, an improved adaptation width of microcirculation, and an increased immune defence by 15-30% after being applied to skin.

Based on the foregoing, the combination of Golz-Berner et al., Zastrow et al., Roller, and Graf et al. does not render the present invention obvious within the meaning of 35 U.S.C. 103. In order to establish a *prima facie* case of obviousness, there must be some suggestion or motivation to modify the reference(s), the prior art reference(s) must teach all the claim limitations, and there must be a reasonable expectation of success. In *re Merck & Co., Inc.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Applicants submit that the claimed combination and amount and size of active ingredients is neither disclosed nor suggested by the cited references. Furthermore, the fact that the combination of these active ingredients exhibits a synergistic effect with respect to increasing functional state of microcirculation, improving adaptation width of microcirculation, and increasing immune defense by 15-30% is not disclosed or suggested by the cited references. In addition, because Roller actually *teaches away* from the claimed invention, it would not have been obvious to arrive at the cosmetic and dermatological agent as claimed in view of the combination of Golz-Berner et al., Zastrow et al., Roller and Graf et al. Accordingly, Applicants believe that the subject matter of claim 11 and all claims dependent thereon are currently in condition for allowance.

Accordingly, withdrawal of this rejection is respectfully requested.

## **Conclusion**

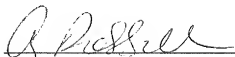
The currently pending claims are supported throughout the specification and are patentable over the prior art. No new matter has been added. This application is now in full condition for allowance, and such action is respectfully requested.

If any issues remain outstanding, Applicants invite the Examiner to call the undersigned if it is believed that a telephone interview would expedite the prosecution of the application to an allowance.

Respectfully submitted,

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Dated: August 5, 2010



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